

Message

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**From:** Delduca, Mike [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9177669B42B1445CB4952C47621E876C-DELDUCA, MIKE]  
**Sent:** 12/30/2013 11:12:04 PM  
**To:** Jackson, Cleophas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=49ebd5e3637242ca84cfb4d53005a6d6-Jackson, Cleophas]; Caffrey, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c0cd89ca6b67467894d7cce425253583-Caffrey, Peter]  
**CC:** Davis, Julian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6bdfbdf185cc43f39aedec9ad41fc4a4-Davis, Julian]  
**Subject:** FW: SEA Engine Questions

DELIBERATIVE MATERIALS

Cle, Peter,

# Deliberative Process / Ex. 5

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**From:** Shelby, Rebecca (R.H.) [mailto:rking25@ford.com]  
**Sent:** Monday, December 30, 2013 12:39 PM  
**To:** Caffrey, Peter; Trajnowski, John (J.T.)  
**Cc:** Delduca, Mike; Jackson, Cleophas; Davis, Julian  
**Subject:** RE: SEA Engine Questions

Peter,

I have forwarded these questions to our engine calibration and certification personnel. However, as we are on holiday, I am not sure when we will receive a response from them.

We will provide a response to these questions as soon as possible. Thanks.

Best Regards,

*Rebecca Shelby*

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**From:** Caffrey, Peter [<mailto:Caffrey.Peter@epa.gov>]

**Sent:** Monday, December 30, 2013 12:14 PM

**To:** Trajnowski, John (J.T.); Shelby, Rebecca (R.H.)

**Cc:** Delduca, Mike; Jackson, Cleophas; Davis, Julian

**Subject:** SEA Engine Questions

John, and Rebecca, In preparation for our decision on whether or not to allow pre-test cycles to be run on the SEA engines to allow for the adaptive learning of the engine to fully learn its operational points EPA has a number of questions.

1. How long does it take to fully condition the adaptive memory?
2. Is this length of time a set parameter or is there variability involved?
3. If there is variability what factors contribute to this variability?
4. How does the adaptive memory work? Specifically what parameters are sensed and what parameters are adjusted and stored in memory?
5. We know that disconnecting the power causes the memory to be lost, are there any other factors that will occur during normal use that will cause an adjustment of these learned parameters?
6. What sensed parameters cause the engine to go into catalyst protection mode?
7. Please supply the operational logs for the engines that have been tested thus far.
8. We are reviewing the application but to aid us in the process please point out where in the application the adaptive learning process is specifically discussed.

Please respond to Cleophas Jackson and Mike Delduca as well in your reply.

Thank You

Peter

Peter Caffrey

Mechanical Engineer

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